

## Overview

The Tribe has reviewed the EPA/NDEP/Tribal MOU under separate cover. In general, the comments regarding the MOU are applicable to these documents. At the May 23, 2017, roundtable meeting, the Tribe informed EPA and NDEP that the proposed agreements disregarded the rights of the Tribes to manage their cultural and natural resources and were inconsistent with the EPA Trust obligation to the Tribes. In addition, dividing the site is inconsistent with the intent of CERCLA, an effective method to manage large, multi-jurisdictional sites.

During the deferral review process, it has become known that NDEP does not employ toxicologist or similar specialties required for risk assessment, does not identify important site components including the Wabuska Siding in their planning documents and has no authority over sections of the site on Tribal lands and has not provided a mechanisms or agreement with the Bureau of Land Management for review despite their 50% ownership of the facility. With the recent addition of over 3,200 acres of the Walker River Paiute Reservation to the site, it is now over 50% federal and Tribal lands; only EPA is able to manage the entire site. The State of Nevada has neither the capability or authority to manage the site and given the immediate threat posed by the OU8 “orphan share” the site should not be deferred. In general, NDEP appears to lack the capability to provide for a realistic role for Tribes at the site or the capability to manage a site of this size and complexity.

### *Specific Comments regarding the Deferral Agreement*

#	Section	Comment
1	Section 1 3 <sup>rd</sup> paragraph	This section implies that the Tribe was part of the decision making process. The Tribe was informed of the decision to delay listing the site. However, the Tribe remains concerned that EPA did not meet their consultation requirements for this important site decision.
2	II. A.	To date, NDEP has not provided an agreement with the Tribe. Responses by the NDEP to the current MOU indicate a need to educate NDEP on general Tribal legal and environmental issues. <i>NDEP appears to lack the capability to provide for a realistic role for Tribes at this site.</i>
3	II. B.	Following the guidance, this site is not eligible for deferral. That review will be under separate cover. In general, NDEP does not have the resources, including staff nor has shown an ability to provide for community participation. Additionally, the site is post-HRS model and the RP is not cooperative, one is bankrupt (Arimetco).
4	II. F.	With sections of the site on the Reservation, Tribal participation and agreements cannot be delayed (90 days after deferral is unacceptable). Those agreements will need to be in place prior to deferral decision since Tribal participation in the decision making process is required by both the EPA conditions in the April 19, 2017, letter and in the model agreement provided. As indicated by the attached Tribal Resolution, those agreements are not in place at this time.

***Specific Comments regarding the Deferral Agreement (continued)***

#	Section	Comment
5	Table Notes 2	The NDEP request for a BLM Borrow Permit is key to the schedule and has not been provided. The second and third items are likely not reasonably scheduled due to the large amount of material needed and key role in the schedule. As indicated in the footnote, this key task is required for construction start but remedial design may be contingent on where the borrow is located and type of material available.
6	III	This section, Procedural Requirements, should include processes for interacting with the Tribes as a regulatory agency.
7	IV	In April of 2017, the Tribe requested at meetings and in written correspondence that a Community Involvement Plan be completed prior to consideration of deferral. This request identified a deficiency in current site management, a deficiency that is not corrected in this process. This unmet request also identifies a failure in the community participation required for the deferral process.
8	IV	There were 3 “roundtable” meetings that were not announced publicly (no newspaper, online or other public notices) that occurred during normal business hours. There were not public meetings regarding deferral to meet community involvement requirements.
9	IV	NDEP did meet with the Tribe prior to the development of the MOU and other deferral documents. Consultation does require the actual description of the intended action, in this case deferral documents including MOU, be provided to the Tribe and adequate time to review the documents be provided. Subsequently, as of the preparation of these comments, NDEP and EPA have not met the requirement for meaningful consultation with the Tribe during this process.

***General Comment regarding the Deferral Agreement***

10. The site is not eligible for listing due to the lack of a cooperative RP (BP continues to challenge EPA expenses for example), timing (the HRS scoring is complete for the site) and lacking meaningful consultation with the Tribe or public meetings, and there is not community acceptance. The statement in the last paragraph stating “This Deferral Agreement is consistent with EPA Guidance” is incorrect.
11. EPA has previously stated that they consider source to be interconnected with OU1. The concept of parcing up the site to exclude tribal authority on all parts, source, pathway, remediation, is not inclusive of the CERCLA process, and thereby does not meet the requirements as set out by EPA.

*Specific Comments for the Framework for Agreement*

#	Section	Comment
12	I.a. 1	This document and site action does not follow EPA's guidance on deferral (OSWER Dir. 9375.6-11) by multiple measures and should not be cited.
13	I.b.	This section should state all documents provided to NDEP will also be provided to the Tribe.
14	I.a. and I.b.	These sections both provide for documents going to EPA but in I.b., NDEP provides the documents and in I.a. ARC provides the documents.
15	I.a.iv.b.	The amount provided for Tribal Assistance is inadequate. EPA and YPT have previously provided budget information and ARC, after reimbursing EPA for the grants, is well aware of the amount required for the site. Additional information is provided for in the MOU comments.
16	I.a.iv.b.	Tribal participation includes activities only partially described in the CIP. An MOU would be more appropriate to describe Tribal Participation.
17	I.a.iv.b.	The Framework omits participation by the Walker River Paiute Tribe. The WRPT currently receives financial support from EPA for participating in the site.
18	II. a.	This section appears to be contrary to the participation of NDEP in a NRDA trustee council. NDEP will need to request review by that council; as a general observation of typical NRDA trustee council MOUs, this agreement may be in conflict with the MOU for NDEP and the council
19	II.b.	NDEP and ARC presented their proposed remediation plan to include combining the OU's including OU8. Section III.b. actual details this option. The operation and maintenance plan, which releases ARC for those obligations, is not possible if the OU's are combined for their remedy. This very likely situation should be addressed in this section.
20	II.b.ii.	The termination of obligations for operation and maintenance after 10 years is not CERCLA equivalent. It is currently unknown what remedial actions are necessary or practical and it is likely (common for sites of this size) to make remedy decisions based on both initial construction costs and expected maintenance costs. This agreement provides for ARC to select the least expensive remedial alternative since the State of Nevada will be paying operation and maintenance after 10 years; a non-CERCLA equivalent situation that pushes costs to the taxpayers that could far exceed the funds provided by ARC for OU8.

*Specific Comments for the Framework for Agreement (continued)*

#	Section	Comment
21	II.b.iii.	This section appears to pre-select the remedial option of evaporation for drawdown fluids and a series of ponds. This level of detail is premature considering the status of the remedial design.
22	II.c.	This section does not indicate how ARC will reimburse NDEP for the Tribe's expenses. Funds for YPT and WRPT should be detailed in this section.
23	II.c.vi.	The retention of 10% of the funds owed to NDEP by ARC will put NDEP in a position where funding will be at risk if they do not certify that the remedy is complete. This section reduces to regulatory control by NDEP to a level that is not CERCLA equivalent.
24	III.b.iii	The VLT material has already been eliminated as a cover material due to uranium leaching. See attached comments on Sub-Area A Sub-Surface Characterization Data Summary Report, Yerington Mine Site, November 9, 2011. Since VLT materials are used throughout the site, a separate plan to manage them is required: the plan is across several OUs.
25	III.b.iv	It is inappropriate for the state of Nevada to provide free fill from BLM properties to private entities. This subsidy is a cost to taxpayers and there may be local, private entities that can provide the material.
26	III.b.v	This section seems to suggest that the site is appropriate for the storage of radioactive materials. The statement "subject to applicable regulatory requirements" seems inadequate when the community may not be accepting of this option or the site, which is surrounded by residential areas, may be completely inappropriate.
27	III.b.vi	Water in the pit lake is known to contain elevated concentrations of selenium. Pre-selecting a no-treatment option is not appropriate. In addition, diverting groundwater or surface water to the pit will likely require participation by the State Engineer if water rights are an issue; this may be outside NDEP authority to manage.
28	III.c.i.a.	The EPA has issued guidance on TI waivers, titled "Guidelines for Evaluating the Technical Impracticability of Ground Water Restoration," OSWER Directive 9234.2-25, September 1993. For groundwater remedy to CERCLA equivalent, the technical impracticability must be demonstrated before a decision can be made for "limited, if any, active groundwater remediation."

***Specific Comments for the Framework for Agreement (continued)***

<b>#</b>	<b>Section</b>	<b>Comment</b>
29	III.c.v.	The expense of moving the Weed Heights sewage ponds which are not part of OU8, is not outside the liability of ARC. This section appears to remove this liability from ARC and require NDEP to procure federal or state grants to cover a cost that should be borne by ARC. This action is not CERCLA equivalent since it is essentially a release from liability.
30	III.c.vi.	ARC has been found to be unable to provide HHRA's for the site as outlined in the Tribe's comments regarding the OU3 HHRA (attached). NDEP does not have toxicologist or risk assessment experts on staff that can support development of HHRA's. This is a deficiency in NDEP capabilities to meet this requirement for CERCLA equivalence.
31	III.c.vi.f.	This section appears to delay development of the offsite groundwater remedy until after the onsite remedy is implemented and evaluated. This creates an arbitrary delay of potentially many years for any offsite action for groundwater. This may be appropriate if the schedule is data-driven but there currently is not data that indicates that this delay is warranted.
32	III.c.vi.f.	The NAC 445A.22725 exception from groundwater corrective action is not CERCLA equivalent and would require the Tribe to abandon their drinking water wells. This option is beyond the capability of NDEP since it requires enforcement on Tribal property where they do not have jurisdiction.
33	VI.b.ii.	Under typical NRDA trustee council MOUs, payments to BLM for past costs would require additional review with the NRDA trustee council.

***General Comments for the Framework for Agreement***

34. Several sections include “future mining operation” options. A future mining operation will not reduce the risk the site creates to the Tribe and its natural resources. Several sections, including II.c.iv create a financial motivation for NDEP to turn the site to a future mining operation. This financial incentive to EPA does not exist under CERCLA; subsequently this situation is not CERCLA equivalent.

35. CERCLA allows “ROD re-openers” if a site is found to have additional problems after the remedy is complete or if the assessment is later shown to be inadequate. Several sections of this Framework for Agreement such as III.a. appear to limit this possibility which creates a situation that is not CERCLA equivalent.

***General Comments for the Framework for Agreement (continued)***

36. The Tribe's rights in regard to the aquifer and groundwater resources appear to be disregarding in the plan proposed by NDEP. A recent decision in the case of the Aqua Caliente Band of Cahuilla Indians v. Coachella Valley Water District provides some insight into management of groundwater and Tribes. In general, the Tribe has a right to the water in the aquifer and a no-treatment option that results in further or future degradation of that resource may not be an option for NDEP and ARC.

**Reviewer:** Yerington Paiute Tribe  
**Document:** Comments Regarding the Statement of Work for Site-Wide RI/FS” (RIFS SOW), Draft dated June 12, 2017 (Attachment to IAOC) and the Statement of Work for RD/RA of CMUs 2, 4, 5, 6, & 7” (OU8 SOW), Draft dated June 12, 2017 (Attachment to IAOC)

## Overview

The Tribe generally concurs with the comments provided by EPA to NDEP on July 27, 2017. Additional comments are provided below as part of a general review. The review is limited due to the recent delivery of key documents; the draft MOU between the Tribe, NDEP and EPA was not provided until July 31, 2017. In addition, if deferral is to proceed, other drafts are expected due to the incomplete nature of this draft and the extensive EPA comments.

In general, these plans fail to acknowledge a Tribal role in this process despite the sections of the site on Tribal property. It is incomplete; citing a CIP that does not exist and missing key site components. In several sections it overestimates certainty of the current conditions resulting in unsupported assumptions.

References throughout the document should be clarified to reflect existing documentation currently available, including section references.

Please provide under what authority does the division have to release Respondent from obligation and responsibilities of prior orders?

It seems reasonable to keep in mind that the operable unit status of the site is to assist in site management but is in effect as a convenience for recognizing site features. Additionally, EPA has defined that groundwater contamination cannot be separated from source remediation. Thereby, separating the YPTs involvement in OUI from other operable units that are recognized sources of groundwater contamination is impossible.

It is unclear where the State has legal authority to dissolve liability of the Responsible Party following the ten-year limitation placed on operations and maintenance of the remedial action. Additionally, in the event of failure to meet all requirements as outlined in the agreements, resulting in the dissolution of the agreement, who becomes the liable responsible party for the activities performed on the “orphan share”?

**Reviewer:** Yerington Paiute Tribe

**Document:** Comments Regarding the Statement of Work for Site-Wide RI/FS” (RIFS SOW), Draft dated June 12, 2017 (Attachment to IAOC) and the Statement of Work for RD/RA of CMUs 2, 4, 5, 6, & 7” (OU8 SOW), Draft dated June 12, 2017 (Attachment to IAOC)

### Specific Comments

#	Section	Comment
1.	I.4.	As indicated by the attached resolution, the Division does not have an appropriate MOU with either the YPT or WRPT and cannot make the statement “The Division has sufficient capabilities, resources, expertise, and authorities to ensure that a CERCLA-Protective cleanup is conducted at the Site and to coordinate with EPA, the BLM, the Yerington Paiute Tribe (“YPT”) and Walker River Paiute Tribe (“WRPT”).”
2.	III.15.a.	The definition for Affected Property: “shall mean all real property at the Site and any other real property where the Division determines, at any time, that access, land, water, or other resource use restrictions are needed to implement the Remedial Act ion or the RI/FS” exceeds the authority of NDEP. BLM owns nearly 50% of the historic mine property and there is no agreement between BLM and NDEP to allow access and with Wabuska Drain, sections of the Walker River and Weber Reservoir all on Tribal Trust property, this concept exceeds NDEP authority.
3.	III.15.vv.	The definition of the site as “including areas where hazardous substances, pollutants, or contaminants released at or from the Anaconda Copper Mine Site have migrated or otherwise come to be located within the State of Nevada” exceeds the stated 3,468 acres.
4.	III.15.bbb.	It is the preference of the Tribes and typical etiquette to not group the WRPT and YPT as “the Tribes”. Abbreviations are acceptable but references should include both not grouped as “the Tribes”.
5.	IV.16.	The description of the location should include the Yerington Paiute Colony and Reservation. The area is also urban/rural residential. “Rural” is not an accurate description of the site that is surrounded by homes.
6.	IV	This section appears to omit the Unisom operation at the site and the Wabuska siding area.
7.	IV.20.	The statement that “the evaporation ponds and tailings piles may have leached contaminants into the groundwater” is not a finding of fact. The fact would replace “may have” with “has” as mentioned in paragraph 26 that states “EPA concluded that heavy metals exist in source materials at the Site and have contaminated groundwater.” Using non-definitive language within such a document suggests that the State does not intend to move forward with site activities in the CERCLA Protective manner required and implemented by EPA

**Reviewer:** Yerington Paiute Tribe

**Document:** Comments Regarding the Statement of Work for Site-Wide RI/FS” (RIFS SOW), Draft dated June 12, 2017 (Attachment to IAOC) and the Statement of Work for RD/RA of CMUs 2, 4, 5, 6, & 7” (OU8 SOW), Draft dated June 12, 2017 (Attachment to IAOC)

**Specific Comments (continued)**

#	Section	Comment
8.	IV.34	The history here does not follow the dated history of this section. Please review and revise as necessary.
9.	IV.35	This section states that “Respondent” reimbursed EPA’s respondent costs; however, the fact that the “Respondent” has reimbursement costs unpaid for an extended period of time goes unmentioned and has not been adequately addressed by NDEP.
10.	IV.39	Second to last sentence states that the loss of 25 domestic wells constitutes a “relatively small number” which is a subjective description requiring revision for to reflect accuracy and fact.
11.	IV. 44	The statement “After initial discussions in December 2016 and January 2017 between EPA, the Division, BLM, and Respondent, and after reviewing with governmental and tribal representatives, EPA decided in February 2017 to postpone listing of the Site on the NPL until at least June 2017 while all parties evaluated deferral options for a private funding solution.” Is incorrect. EPA announced the decision to delay listing without consultation with the Tribe. The Tribe was notified and was not a participant in that discussion. Previous comments regarding listing, including support resolutions, clearly show Tribal support for listing as opposed to continued delay.
12.	VII.48.e	EPA participation does not acknowledge Trust responsibility to the YPT and WRPT. For clarity, language should be added to this effect.
13.	VIII.A.54	Describe or reference an emergency clause for emergency actions associated with late or limited activity by the “Respondent”.
14.	VIII.A.55	Last paragraph should read “shall provide” in place of “may provide”. This occurs in other parts of the document, such as paragraph 62.
15.	VIII.B.57	Include a requirement to review new technology as potential alternatives; including technology in the R&D phase as appropriate.

**Reviewer:** Yerington Paiute Tribe

**Document:** Comments Regarding the Statement of Work for Site-Wide RI/FS” (RIFS SOW), Draft dated June 12, 2017 (Attachment to IAOC) and the Statement of Work for RD/RA of CMUs 2, 4, 5, 6, & 7” (OU8 SOW), Draft dated June 12, 2017 (Attachment to IAOC)

**Specific Comments (continued)**

#	Section	Comment
16.	VIII.E.72.a	Due to the lack of a CIP for the site, the Tribe recommended that one be finalized prior to consideration for deferral. The document states “the Community Involvement and Participation Plan, which the Division will prepare within 90 days after the effective date of the Deferral Agreement and which will become, upon its completion, incorporated into this Settlement under Section XXXI.” This will require that this document be accepted without a major section and citation completed. It is not possible to review and determine the effect this action will have on the Tribe without that section, the CIP, completed.
17.	VIII.E.72.b	Corrections for this sections are found in comments above: the \$100,000 limit for funding Tribes is a 50- 80% cut in funding in year 1 and 100% cut after that. In addition, the Tribe will utilize the funds to hire their own technical experts to evaluate site actions. Funding for both Tribes is required and should continue through the 5 year reviews post-ROD.
18.	VIII.E.73.b	The state should include an assessment of financial loss due to transport of materials out of state for disposal. Included in this is the risk for spills and damage to other parts of the state if material is mishandled during transport and should be discussed here or in a referenced document. A discussion of vector control required for storage of increased quantities of waste product. These could include rodents and small mammals, mosquitos and other insects, and large mammals such as bears and mountain lions. Other concerns include rattle snakes and scorpions.
19.	VIII.E.74	This section should be revised to reflect changes made in paragraph 48.e. describing the relationship with the YPT and WRPT authority and trust relationships.
20.	IX.76.b	The first sentence states a purpose that is unclear. Please revise and clarify.
21.	IX.76.e	This paragraph seems to limit EPA authority on the site. It should be made clear that EPA has reviewed workplans and other site remedy documents thereby certifying that the site has met the CERCLA protective remedy required.

**Reviewer:** Yerington Paiute Tribe

**Document:** Comments Regarding the Statement of Work for Site-Wide RI/FS” (RIFS SOW), Draft dated June 12, 2017 (Attachment to IAOC) and the Statement of Work for RD/RA of CMUs 2, 4, 5, 6, & 7” (OU8 SOW), Draft dated June 12, 2017 (Attachment to IAOC)

**Specific Comments (continued)**

#	Section	Comment
22.	IX.85	The sentence “...the Division shall solicit any comments or input from other State or Federal agencies...” should include “Tribal” to be CERCLA equivalent.
23.	IX.87	Last sentence highlights the potential deficiency the state is likely to have with regard to personnel. This is an issue noted previously that requires appropriate consideration.
24.	IX.88	It is non-CERCLA protective for the state to relinquish its authority because of lack of sufficient resources to review site documents. This is an issue noted previously that requires appropriate consideration.
25.	X.VII.112.a. and c.	This section should be updated to include pre-payments for the Tribes and how billing is handled, see comments on the MOU.

**Review of:**  
**Sub-Area A Sub-Surface Characterization Data Summary Report**  
**Yerington Mine Site, November 9, 2011**  
**Brown and Caldwell, Carson City, NV**

## **Overview**

The document presents the methodology and results of calculating the amount of water infiltrating sulfide tailings presently capped with VLT material.

## **Specific Comments**

### **Section 1, Page 1, Paragraph 2.**

The location of Sub-Area A within the mine the site cannot be determined by Figures 2 and 3 because the site is not marked on Figure 2 and Figure 3 lacks coordinate information. Figure 3 also lacks sufficient identifying features to know where it is located on Figure 2.

### **Section 1, Page 1, Paragraph 2.**

The text states that the surface sediments (VLT) appear to consist of homogeneous reddish to grayish clay-sized particles. However, Table 6 reports the upper layer of VLT is clayey sand with gravel. This suggests that the fine grained surficial materials were washed onto the site by erosion or are wind-blown deposits. The sentence on page 1 gives the reader the impression the VLT is very fine-grained whereas they are actually comprised primarily of sand-sized and larger particles. A clarifying sentence should be added to the report stating that at depth below the surficial clays the VLT is comprised of clayey sand with gravel.

### **Section 3, Page 4, Paragraph 5.**

The VLT materials exceed screening criteria for chromium, radium-226, and uranium. This calls into serious question as to the suitability of VLT to serve as a cover for tailing at the site. If the cover is hazardous, how does this protect human health? To what extent will this material erode and become an air borne contaminant?

### **Section 4, Page 6, Paragraph 2.**

The VLT materials generate leachate that exceeds federal MCLs for beryllium (by a factor of 3), copper (by a factor of 200), and uranium (by a factor of 8). So if the site is covered by VLT, then we will need to depend on the adsorption capacity and geochemistry of the underlying tailings and alluvial soils to protect groundwater. How many Superfund sites in the nation are allowed to use capping materials that generate hazardous leachate?

The 7.2 acre Sub-Area A site will result in about 14,550 gallons of water per year exceeding federal MCLs per year to reach groundwater. What is the ultimate fate of this water and the associated contaminants?

The EPA and NDEP will need to officially present their opinion as to viability of using capping material that is mainly sand with clay that has been proven to generate leachate exceeding federal MCLs.

Additional leachate testing of the VLT is recommended to determine how many years / pore volumes the VLT will produce leachate in excess of federal MCLs.

The only rational conclusion is that use of VLT materials for capping the site will allow continued groundwater contamination.

**Section 7, Page 14, Paragraph 2.**

The calculated amount of infiltration is 1.4 percent of precipitation. Given the low permeability of the VLT, this is a reasonable value.

This number does demonstrate the serious inadequacy of the groundwater recharge rate for undisturbed soils at 0.1 percent of precipitation that is often-referenced by ARC. If the clayey sands have a recharge value of 1.4 percent, then the far more permeable area soils can be expected to have a much higher recharge rate; similar to the recharge rate of 4 to 5 percent as estimated by the USGS for the area.

**Section 7, Page 14, Paragraph 5.**

The paragraph presents the mass balance equation for the unsaturated flow model. It would be helpful to know the percentage of each component in the equation so that we can evaluate how much runoff will be occurring on the VLT capping materials.

**Section 7 Overall**

The unsaturated zone modeling was well thought out is appropriate for the available data.

Given the importance of these calculations in planning future site work, ARC may wish to consider future monitoring of soil moisture at the Sub-Area A site to demonstrate that soil moisture will decrease in the sulfide tailings and alluvial soils beneath the VLT cover as predicted by the model.

**Document:** Draft Baseline Human Health Risk Assessment Work Plan for the Process Areas Operable Unit. December 2016

**Reviewer:** Yerington Paiute Tribe  
July 24, 2017

**Specific Comments:**

#	Section Page	Comment
1	Figure 1 2	The map omits the location of the Colony, immediately east of the historic facility in Yerington and should note either with text, inset map, or larger scale figure, the extent of OU7 inclusive of the YPT and Walker River Indian Reservation and the Wabuska siding facility. The proximity of Tribal property to the site is critical to the discussion of pathways et cetera for the document and Figure 1 is important to introducing these issues.
2	1.1 3	The phrase <i>“The Yerington Mine Site is located west and northwest of the City of Yerington, in Lyon County, Nevada (Figure 1)”</i> should read <i>“The Yerington Mine Site is located west and northwest of the City of Yerington and Yerington Paiute Indian Colony and south, east of the Weed Heights and south of the Yerington Paiute Tribe Reservation, in Lyon County, Nevada (Figure 1).”</i> This is important to defining the cultural ties the Tribe has to the property and the urban location important to the discussion of trespassers and development.
3	1.1 3	The paragraph <i>“Detailed descriptions of the Yerington Mine Site, its ownership and operational history, and historical activities occurring within the Process Areas are provided in the Process Areas (OU-3) Step-out Soils Characterization Data Summary Report (DSR; Brown and Caldwell 2014a), Draft RI Report (Brown and Caldwell 2016), and within Section 9.0 of Scope of Work for Remedial Investigation/Feasibility Studies (Attachment A to the Administrative Order for Remedial Investigation and Feasibility Study, Docket No. 9-2007-0005) (SOW)”</i> should reference the EPA, 2010. Final Historical Summary Report Anaconda-Yerington Mine Site, Yerington, Nevada. Prepared by CH2M Hill, Inc. October. The other documents are either referencing the EPA document or are only the briefest of summaries of site history.

**Document:** Draft Baseline Human Health Risk Assessment Work Plan for the Process Areas Operable Unit. December 2016

**Reviewer:** Yerington Paiute Tribe  
July 24, 2017

**Specific Comments (continued):**

#	Section Page	Comment
4	1.1 4	Additional discussion of the PCB issue should be added due to the nature of the operation in the area (recovery of PCB laden transformers by Unisom). The threat created by a PCB site within the area could be diluted by the large number of samples. It is important to determine if the occurrence of PCB contaminated materials was minimal since there could be small area with elevated concentrations of PCBs that is of significant risk but not a significant number among the 3,385 samples.
5	1.1 4	Not all 3,385 samples were analyzed for all of the parameters started here, a misstatement that needs to be corrected, so the use of “magnitude of detections” is a false method. What are the detection rates among samples tested for the specific parameters stated in this section?
6	1.2 6	<p>The applicable guidance’s are incomplete. As well described in “A Native American exposure scenario” (<u>Risk Analysis</u>. 1997 Dec;17(6):789-95):</p> <p><i>“EPA’s Risk Assessment Guidance for Superfund (RAGS) and later documents provide guidance for estimating exposures received from suburban and agricultural activity patterns and lifestyles. However, these methods are not suitable for typical tribal communities whose members pursue, at least in part, traditional lifestyles. These lifestyles are derived from a long association with all of the resources in a particular region.”</i></p> <p>This is required due to Tribal trust property on and adjacent to the site and the well documented occurrence of wildlife on the site including within OU3 (Figure 1) and migratory waterfowl at the site as reported by USFW.</p> <p>The Tribe has prepared a cultural resources report that includes an extensive bibliography: many of those references as applicable should be included here.</p>
7	3.3.3 8	It is worth a sentence or two to explain why negative values occur and are useable. It does not need to be in-depth but enough to clarify the situation and direct less experience reviewers to appropriate references.
8	2.3.4 8	Field duplicates are not “additional” samples but selected among planned samples. Removal of them can eliminate up to 10% of available data. It is recommended to pick a set one (first collected) or random of the two and use the data.

**Document:** Draft Baseline Human Health Risk Assessment Work Plan for the Process Areas Operable Unit. December 2016

**Reviewer:** Yerington Paiute Tribe  
July 24, 2017

**Specific Comments (continued):**

#	Section Page	Comment
9	2.3.5 9	The report states that <i>“Four surface samples collected from Subarea 2 (truck shop and crushers) and Subarea 5 (precipitation plant) will be excluded from the analysis. These samples were assigned a start and end depth of zero, which differs from the rest of the samples which were collected below ground surface.”</i> These samples should be noted but since this sampling method does not identify samples that would be not considered part of exposure, in fact they might be very descriptive of conditions appropriate to calculate exposure, the data should be used.
10	2.4 9	The report states <i>“Sediment samples collected from pipes and water grab samples were drawn from within structures or pipes that are not continuous exposure areas and will not be included in the HHRA. Data for these samples will be compared to EPA regional screening levels (RSLs) as requested by Dr. Sophia Serda, EPA toxicologist, during a meeting with ARC on January 27, 2015. The results of the comparison to RSLs will be provided in the HHRA report.”</i> If these structures remain onsite (not removed previously) and meet other criteria (15 feet from surface), they must be included. Construction exposure is very likely and other routes may persist as long as the features. These calculations are important to determine if these features create a risk warranting further action.
11	Table 1	The data presented indicate that VLT is not homogenous as stated in Section 2.4. This issue has been presented to the RPs previously and represents a serious data gap that is now delaying progress. Sampling should be scheduled promptly and if this data is to be used, generous allowances should be made to insure the risk is not underestimated.
12	2.5 12	The report states <i>“Samples from multiple background reference areas have been collected to differentiate the natural or anthropogenic background constituent concentrations from those associated with releases at the Site.”</i> In this case, there are 2 background reference areas of which one was selected. One or two areas is not accurately described as “multiple.” In this phrase, the term “multiple” needs to be replaced with “two.” Without this correction or additional clarification, the author is overstating their background data sources.
13	3.1.1	This entire section is very misleading. There are homes adjacent to the site property at Weed Heights and Locust Lane and homes nearby in Yerington and Sunset Hills. The site is an easy walk or bicycle ride for a child intruder.

**Document:** Draft Baseline Human Health Risk Assessment Work Plan for the Process Areas Operable Unit. December 2016

**Reviewer:** Yerington Paiute Tribe  
July 24, 2017

**Specific Comments (continued):**

#	Section Page	Comment
14	3.1.2	<p>This section is misleading and continues to repeat a fallacy previously corrected by the Tribe. With the area around the site residential, the prospect for an “infill industrial area” to remain industrial is not likely in most urban plans. The Comprehensive Master Plan in Lyon County has been known to be changed as it has recently been changed in association with the Comstock Mine. In this case, a Suburban Residential land use designation was changed to Resource and Rural Residential by the Lyon County Commission, although the request had been denied by the Planning Commission following Lyon County Planning Department recommendation for denial. Dependence on current CMP components should be revised to address the potential implication of such changes at the site.</p> <p>EPA is correct to require treatment of the site as residential to protect the adjacent properties and protect residents for weak local zoning. Additionally, with the area surrounded by residences, it is no stretch of logic or exception to be appropriately protective.</p> <p>The site continues with references to other economic development prospects that have no regulatory bearing on the site. The property owners at this site, like all CERCLA sites, are completely dependent on the actions of regulatory authorities, EPA in the is case, and the responsible parties to develop future land use.</p>
15	3.1.2	<p>References to the Mason Valley Environmental Coalition (MVEC) should be removed and documents citing them as local authorities disregarded. This organization was founded upon a strictly political agenda and refused to allow non-white members of the community including Tribal Members, to participate.</p> <p>It is also noteworthy that the Tribe has opened discussion with BLM regarding acquisition of public lands on the site that include OU3. It would be more appropriate to discuss BLM land use in this section than the extended explanation for fiction zoning stability in Lyon County.</p>

**Document:** Draft Baseline Human Health Risk Assessment Work Plan for the Process Areas Operable Unit. December 2016

**Reviewer:** Yerington Paiute Tribe  
July 24, 2017

**Specific Comments (continued):**

#	Section Page	Comment
16	3.2 33	<p>The CSM for the site is draft and should not be cited. However, this citation which appears to reference the CSM may actually be for another document: <i>“The chemical sources, release mechanisms, transport pathways, and potential routes of human exposure are summarized in the Site-wide CSM (Integral and Brown and Caldwell 2007).”</i></p> <p>The cited document is for OU1 and does include some HHRA components of interest. To remedy this, components of the CSM required for this document should be presented in full in the document for review until a CSM for the site can be finalized.</p>
17	3.2 33	<p>The list of potential releases is incomplete. Petroleum hydrocarbons are part of the ore processing, not just lubricants and motor fuels. Omitting this can result in under estimating the threat from petroleum hydrocarbons. The site history document from CH2MHill cited above provides information on this issues.</p>
18	3.3.2 34	<p>One long known issue with VLT is leaching of uranium. In the absence of a stormwater management plan and VLT covering the vast majority of OU3, this is an important pathway for uranium to groundwater. Although it is a desert environmental, standing water occurs in the area and brief but intense rainfall as well as snow accumulation, both expected in and observed in the area, will facilitate the downward movement to groundwater. Instead of disregarding this fact arbitrarily, this document should provide details and calculations outlining the risk issues used to determine corrective actions such as capping or removal.</p>
19	3.5.1.2 38	<p>This section needs to be revised to consider constructions workers on the site as part of remedial efforts followed by redevelopment. Remedial efforts have been estimated to last between 10 and 20 years with subsequent redevelopment, could result in a construction worker experiencing an entire career at the site. Exposure to soils and dust would not be a minor pathway. This will require corrections in subsequent sections such as 4.2.2.1 and the calculations.</p>

**Document:** Draft Baseline Human Health Risk Assessment Work Plan for the Process Areas Operable Unit. December 2016

**Reviewer:** Yerington Paiute Tribe  
July 24, 2017

**Specific Comments (continued):**

#	Section Page	Comment
20	3.5 37	The statement “ <i>There are no current or anticipated future residents or recreational users of the Process Areas OU. Although residents are described in Section 3.5.3 and will be included in the HHRA, the use of residential exposure assumptions will tend to substantially overestimate potential risks within OU-3</i> ” needs to be removed. EPA has directed ARC to use residential use and the statement is misleading considering adjacent land use and lack of physical and legal controls for the site.
21	3.5.2 40	The statement “ <i>Because the Process Areas OU is not located near or adjacent to a residential area, it is assumed that the trespasser is teenaged juvenile as opposed to a young child</i> ” is incorrect. Residential areas are well within a range of OU3 for children to walk or bike ride and the site is an attractive nuisance. As corrected, this is not a minor exposure pathways.
22	3.5.3 41	The statement “ <i>Contact with ephemeral pooled water following snowmelt or storm events is expected to be a potentially complete but minor pathway because these waters are not present year-round and residents are not likely to contact the waters on a regular basis</i> ” needs to be corrected. Irrigation practices in residential, commercial and industrial areas to maintain landscaping and stormwater control (erosion prevention) will result in standing water for the dry months of the year with the same risk as stormwater.
23	4.2.1.1 46	According to the statement “ <i>Analytical data for VLT are for metals and radionuclides only. The presence of VOCs, SVOCs, pesticides, herbicides, and PCBs is assumed to be negligible as the presence of these chemical classes within OU-3 is attributed to historical activities that occurred prior to placement of the VLT in OU-3. For sample locations where VLT were identified but organic constituent data are not available, the EPCs for organic constituents will be calculated using analytical data for native soils only</i> ” the lack of analytical data for surface material, VLT, for hydrocarbons defaults to zero. This assumes that no vehicle ever leaked oil or fuel, no hydrocarbons were spilled on the material or that it was never used to cover oil stained soils. A modern mining vehicle such as that described in Table 1, contains over 2,800 gallons of petroleum hydrocarbons. Minor leaks or an “oops” fuel pump repair can put hundreds if not more gallons of petroleum hydrocarbons on the ground. This is contrary to historical data from the site, the operators spilled, and expectations for vehicle repair areas, parking areas and roadways for any industrial site. Adding to this, there was a transformer operation in the area. As indicted above, the lack of site specific data for VLT material in OU3 is a significant data gap.

**Document:** Draft Baseline Human Health Risk Assessment Work Plan for the Process Areas Operable Unit. December 2016

**Reviewer:** Yerington Paiute Tribe  
July 24, 2017

**Specific Comments (continued):**

#	Section Page	Comment
24	4.2.2.1 51	As indicated above for Section 3.5.1.2, this needs to be corrected for a longer exposure term. The <i>statement “EPA does not provide guidance for selection of exposure frequency for an excavation or construction worker scenario. For this baseline HHRA, EPA recommended an exposure frequency of approximately 6.7 months, or 200 days/year, onsite. This value was recommended as an RME value. For the CTE value, it is assumed that an excavation or construction worker is hired for one short-term project lasting 1 month, or 20 days/year”</i> is appropriate for a post remediation construction worker but not appropriate for exposure for a worker participating in both the remediation of the site and post clean up development.
25	4.2.2.2 51	See comment above, the term for construction workers is not correct. It should also be noted that in a small community such as Yerington, this will be the largest construction project for more than a decade and will monopolize the labor pool. It is an incorrect assumption that workers will be onsite for less than 1 year.
26	4.2.2.4 52	The averaging time for a construction worker is the same for an outdoor worker for the site, see comments above (9,125 days).

**General Comment**

27 Figure 3 shows the vast majority of the area covered with up to 10 feet of VLT. This would mean that nearly all the risk assessment discussion of surface soils should be about VLT. Subsequently VLT is critical to the document and should be very clear on what was sampling from these areas and was VLT et cetera; what is VLT and what is native soils. In addition, VLT samples from other areas, as indicated above, should be referenced but not the only data. In summary, this document should be used to determine if VLT can stay in the area, be covered or be removed. That would require additional discussion on VLT compared to natural soils and the natural soils compared to background, not VLT. The background for VLT may be the reference areas but this document does not include that discussion or comparisons.

One of the more insightful documents regarding VLT is the Sub-Area A Sub-Surface Characterization Data Summary Report, Yerington Mine Site, November 9, 2011, Brown and Caldwell, Carson City, NV. The Tribe’s review of the document is attached.



Figure 1. Deer moving into the process area (OU3). Note residential area, Weed Heights, in the background.

Table 1. Petroleum Hydrocarbon specifications for a typical mining dump truck, a Caterpillar 797B Rock Truck. These vehicles burn more than 100 liters of fuel and hour. Management of hydrocarbons would be a major issue for the site and fuel storage is not discussed in the reviewed document.

Item	Gallons of Petroleum Hydrocarbons
Fuel Capacity	1800
Engine Oil	110
Diff and Final Drive Fluid Capacity	110
Steering System Fluid	114
Brake/Hoist	486.6
Hydraulic system	263
<b>TOTAL</b>	<b>2883.6 gallons of petroleum hydrocarbons per vehicle, 100 liters of fuel used per hour of use.</b>